

ANNUAL REPORT

TO THE MEMBERS OF THE

WILLENHALL

URBAN DISTRICT COUNCIL

—BY—

JOHN T. HARTILL,

L.R.C.P.L., M.R.C.S. Eng., J.P.,

MEDICAL OFFICER OF HEALTH.

JANUARY 24th, 1898.



J. BENNETT, PRINTER, 32, CROSS STREET, WILLENHALL.



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Medical Officer's Annual Report, 1897.

In writing this Report I have utilized not only my own knowledge of facts and events, but as far as possible have made myself acquainted with what happened during my long illness, when Mr. G. Kendrick acted as my Deputy, and the report having been first submitted to him, it may be taken as our joint production, covering the sanitary history of the whole year.

Calculated on an estimated population of 18,669 at Midsummer, the birth rate was 38·5, and the death rate 22·1 per thousand. The death rate from preventable causes was 6·3 per thousand. The death rate from all causes in the ten preceding years was 20·5 and from Zymotic Diseases 3·2 per thousand. The deaths among children under a year old were 227·7 per thousand births registered. The chief features of interest in these figures are that the birth rate was high; the death rate from all causes higher than in any year since 1877, except in 1880 and 1894; the death rate from Zymotic Diseases the highest since 1883, previous to which I have no exact record; and that the mortality amongst infants was excessive. From 1845 to 1877 the death rate was nearly always considerably higher than in 1897.

Sickness during the first half of the year was well below the average from all causes; whilst in August Diarrhœa was very prevalent, and from September to the end of the year there was a great epidemic of Measles. The high death rate and excessive infantile mortality were chiefly due to these causes.

The certified cases of infectious Diseases were Scarlet Fever 42, Typhoid Fever 18, Erysipelas 21, Diphtheria 19, Membranous Croup 2 and Puerperal Fever 1 ; whilst of non-notifiable Diseases, the cases which came to my knowledge were Whooping Cough 51, Diarrhœa 90, English Cholera 2, Mumps 39, Chicken Pox 55, Measles 738, Influenza 13, Ringworm 7 and Scabies 2. Of these 61 died from Diarrhœa, 35 from Measles, and 22 from other causes.

The cases of Scarlet Fever were on the whole mild in type, and all but one were treated at home. Several of the cases came home ill from other towns.

There were 18 cases of Typhoid Fever in 17 houses scattered over the town. Of these the origin of 2 was clearly indicated in my last Annual Report, one was contracted at Compton, one was a bricklayer whose last work was the conversion of privy cess-pits into waste water closets, in one case a defective Kenyon trap was found and the street gully opposite the house leading to the surface water drains into which a neighbour had connected his house drains was also faulty, in six of the cases the disease might have been caused by contamination of the soil and atmosphere of the house by emanations from adjacent open ashpits or privy cess-pits, whilst in the remaining seven cases no cause was found either on or off the premises. Many of the defects were remedied, and the Council will remember that for many years past I have thought it desirable that all ashpits should be covered and ventilated, and that privy cess-pits if they are to be allowed at all should be much reduced in size and oftener emptied.

The cases of Diphtheria were more numerous than in any previous year, but three of them were contracted elsewhere. The immediate cause of Diphtheria is a micro-organism, which is more ready to attack those whose tonsils are faulty, whether the faultiness be due to insanitary surroundings or dependent upon other diseases. Many of the cases were extremely mild, but I have no evidence before me as to whether in any of these mild cases, the opinion expressed of their nature was confirmed by expert bacteriological examination. At any rate, although Diphtheria is known to be highly infectious, there was only one case in each infected house, and with one exception there were not two cases in

one street. As an illustration of the need of an Isolation Hospital, a child certified to be suffering from Diphtheria, about four days after the attack began was found playing about in a room used also as a retail shop. Arrangements have been made at Mason University College whereby doubtful cases of Diphtheria may be confirmed or otherwise by cultivation experiments, but the cost although moderate is prohibitive for the poorer classes, unless the Council can follow the lead of the Birmingham Corporation and provide the necessary examinations free of cost to members of the Medical Profession.

The woman who died from Puerperal Fever was attended by the same untrained midwife, to whom reference was made in my last Annual Report, and similar steps were again taken to prevent her attending or visiting the lying-in.

Whooping Cough caused seven deaths, chiefly in the latter weeks of the year, but there is no need for further comment on this ailment.

Of the 63 deaths from Diarrhœa and English Cholera, 56 were of children under five years old, 35 occurred between July 24th and August 14th, and 20 more between August 14th and September 18th. The average number of deaths per year from this cause in the previous 16 years was 18 and the highest number in any of those years was 36. It is well known that infantile Diarrhœa is associated with ground temperature in some mysterious manner not equally well understood, and that the saturation of the ground near to human dwellings by leakages from cess-pits and ash-pits favours the production of the ailment as soon as the sub-soil four feet deep reaches a given temperature. Diarrhœa became prevalent and fatal coincident with a great rise in Temperature, and I do not doubt it will be found that the disease was more than usually fatal throughout the Country. High temperature favours also putrefactive changes in food and partly putrefied food favours the development of Diarrhœa. In conjunction with these facts, it is significant that the greater portion of the deaths was amongst hand-fed children, a significance which becomes greater by the fact that there was a perfect plague of flies whose habits are to alight on filth of all kinds and afterwards to walk over the sugar in the sugar basin and drown themselves in milk or gravy.

In the last four months of the year there was a great epidemic of Measles. The ailment in the first instance chiefly affected the children attending Portobello Board Schools and the Wesleyan Schools, and both these Schools were closed for six weeks from September 25th, by order of the Council and both were afterwards disinfected. At a later date the question was considered, whether it was desirable to close other Schools, but the chief sources of infection were found to be the Scholars of the two Schools already closed, and in the presence of a fairly general distribution of the disease throughout the town its utility was doubted. Reviewing the facts it seems probable the closure of the Board Schools did good, but that so much cannot be said of the Wesleyan Schools. Five hundred and four houses and 738 persons were infected and the deaths numbered 35.

That so large a number of non-notifiable Infectious Diseases came to my knowledge proves the utility and the power of the organization established for this purpose in 1894, and the causes of the excessive infantile mortality were mainly the prevalence of Diarrhœa, Measles and Whooping Cough, especially the two former.

Printed instructions as to the management of these several diseases were left at each house, and at the same time a survey of the premises was made by the Inspector of Nuisances.

For the causes indicated in Table B, 741 certificates were issued as shewn in Table D to the Schoolmasters of the various Elementary Schools advising exclusion of children from infected houses for stated periods. These involved the absence from School of 1,110 children who were healthy when the advice was given, but many of them were I believe attacked afterwards.

The Inspection of the Workshops commenced in 1896, was finished early in 1897. New Workshops were inspected personally and the remainder by the Inspector of Nuisances who was instructed by the Council on my suggestion to indicate free of cost on the proper Form (46) the number which may legally be employed in each room. One hundred and seventeen workshops were inspected ; 36 notices to lime-wash were given and 35 of these were complied with, in the other case occupation has ceased ; 6 nuisances were found, of which five have been

abated and the other is about to be; and in two cases where part of a dwelling house was also used as a work-room for the making up of clothing I told the occupiers they must report to me at once any case of Infectious Disease, but especially of Scarlet Fever or Small Pox, which may occur on their premises. A list of workshops with insufficient sanitary conveniences for both sexes was supplied to the Town Surveyor.

At the conclusion of the inspection of workshops, a house-to-house visitation was on my suggestion commenced by the Inspector of Nuisances with special reference, Firstly—To the detection and abatement of nuisances generally. Secondly—To the special examination from a sanitary point of view of all the ashpits, water closets, and privies to which there was legal access. Thirdly—To the special examination of house drains, particularly as to their traps, disconnection from the sewers by approved means and the complete disconnection of sink and bath-waste pipes from the drain pipes and Fourthly—To obtain a record of every case in which the water supply pipe is fixed against, or in close proximity to, the ashpit or privy wall. To the present time 1,836 houses have been visited. A reference to Table C will convince the Council that such visitations are most necessary and constitute a great safe-guard of the public health. When the inspections have been completed I shall make further reference to this subject. Thirty nuisances reported to or ascertained by me were dealt with by the Inspector.

During the year 431 houses were connected with the sewers—not however in some cases until prosecutions had been instituted. There are now connected with the new sewers 1,632 houses, many Factories and Schools, and all the Slaughterhouses. One hundred and seventy nine waste water closets were put in, and the Council acting on my suggestion issued a notice that tenants are responsible for any nuisance arising from stoppages of drains or closets, caused otherwise than by defective construction, and stating that on written application they will undertake the clearing of blocked drains or closets, when not caused by defective construction, at a rate of 1/- per man per hour, with a minimum charge of 2/6.

Probably more new houses were built than in any year for twenty years past, but still the supply is insufficient.

Prosperous trade again caused a large demand for the employment of children and young persons in Factories. About 9 per cent. were rejected as unfit to work on the grounds of health or neglected education, and rejections of children were more numerous than of young persons—that is of persons between 14 and 18. All Surgeons are under an obligation to report cases of lead poisoning. Two such cases were investigated by me and a report was made on the cause to the Home Secretary. In one of the Factories on the suggestion of H.M. Inspector an addition has been made to the steam-power fan already in use, which so far as I can see will diminish materially the lead dust in the air and lessen the risk of lead poisoning in the future.

I am informed the Small Pox Isolation Hospital is kept in readiness for use, but no progress has been made this year either by the Council or County Council towards providing a much needed Isolation Hospital for other infectious diseases.

The new Cemetery is being drained and laid out and will probably be ready for use in a few months. I hope the Council will provide in the Cemetery a Mortuary to which the bodies of persons who may die from certain Infectious Diseases under defined circumstances may be removed prior to burial. To this end, I advise the Council to adopt some of the sections of the Infectious Disease (Prevention) Act, 1890, which Act perhaps it would be better for me to discuss first with your Clerk.

The proposed new bye-laws prepared by me in 1895 and 1896, have not yet been submitted for approval to the Local Government Board. They are much needed, and I advise the Council to consider them and submit them in such form as they may approve without further delay.

With regard to the properties in Brick-kiln Street and New Street, on which a special report was made in 1896, I am informed considerable improvements have been effected by several of the owners, that the Council has passed an improvement scheme for another property, and that formal notice has been served on another of the owners. This has been on hand a long while, and it will be necessary to consider whether

some of the properties shall be condemned as absolutely unfit for habitation, unless the requirements of the Council are met without further delay.

Reports were made upon the condition of six houses in Spring Vale Street, three at the rear of the Cock Inn, Walsall Street, and one house at Temple Bar. All, in the condition they were at the date of examination, were considered unfit for habitation. One has been closed and the remainder await the Council's consideration. The condition of the surface water drains in Spring Vale Street is anything but satisfactory.

A Report was also made on the condition of premises at Monmer Lane, disclosing the existence of serious nuisances, and condemning the dairy as unfit for use in its present state. This also needs the Council's attention. In the course of this year I hope the Council will "take the necessary steps for securing the due regulation and cleansing of Dairies and Cowsheds." The first step towards this end is the registration of cowkeepers, dairymen and purveyors of milk, because I think your Clerk will advise you that the Council has not the power "to make regulations prescribing conditions to be fulfilled" until this has been done. In due course I shall be prepared to advise the Council on this matter.

The food supply was abundant and on the whole good, but six pieces of sour, unwholesome frozen beef were condemned. The case was not a bad one, and the Council acting on my advice decided not to prosecute the tradesman.

The water supply was abundant and I am not prepared to say it was not excellent; but having regard to the excessive fatality from Diarrhœa in July, August and September, and to the somewhat abnormal number of cases of Typhoid Fever in 1896 and 1897; having regard also to the lamentable history of the great epidemics of Typhoid Fever at Maidstone and Lynn and a passage in my Annual Report for 1892, a copy of which is appended, the Council instructed me to ask the Corporation of Wolverhampton if they would kindly give me copies of the monthly reports since July of the analysis of the Corporation water, if such examinations had been made. To this the Town Clerk sent a courteous reply in which he said "that reports of the analyses of the Corporation water, such as you desire have not been issued, as samples have not been taken monthly.

Previous to the receipt of your letter it had been arranged that a bacteriological examination of both river water and well water should be made, and on receiving this report a copy of the certificate shall be supplied to you. It is quite true that, at times, water is taken from the river and supplied in conjunction with water from the wells, but the M.O.H. does not attribute the prevalence of Diarrhœa to the water thus supplied. My Committee wish me to point out that an epidemic of Diarrhœa prevailed generally throughout England during the months of August and September, and that its cause was attributed to the excessive heat experienced during those months and not to water supply. As the water supplied to both Wolverhampton and Willenhall is derived from the same source it follows that if one community is affected, it is probable the other would likewise be affected. You may therefore rest assured that my Committee in the interests of all parties concerned do take, and will continue to take every precaution to ensure wholesome water being supplied to this Borough and the surrounding districts within their water limits." So far as Willenhall is concerned the Council is responsible for securing a proper supply of pure water, and as river water is more liable to pollution than deep well water no opportunity should be lost in attempting to get the whole supply from the wells, especially as I have some reason for thinking the supply is enough. If by any chance water does get considerably polluted even for a short time, the mischief is usually done (as was probably the case at Maidstone), before it is possible to provide the remedy. I am strongly of opinion that the water should be frequently examined chemically and bacteriologically, and that the reports thereon should be public property alike in the interests of Wolverhampton, Willenhall, Short Heath, Wednesfield and Heath Town.

As far back as 1891 I advised that some means should be adopted for securing the precipitation of solids in the sewage tanks before the liquids passed on to the sewage farm. The County Analyst has been consulted and I understand the Council is endeavouring to negotiate a loan for the purpose. I hope the land is not already too much sludge-laden to prevent intermittent downward filtration.

The number of children registered as born in 1896 and 1897 was 1,369. The number of deaths of children less than a year old was 284.

The number vaccinated in the same years was 565, whilst 14 cases were said to be insusceptible. It therefore follows there has been a great neglect of vaccination both by parents and the Authority whose duty it is to enforce the Vaccination Acts, and judging by newspaper reports it seems as though that Authority, which is not a health Authority, intends to persist in the neglect of its clear statutory duty. The figures indicate, I don't hesitate to say insufficient vaccination as well, for there ought not to be 14 children insusceptible of vaccination out of 20,000 vaccinated.

The streets not taken to by the Council are I believe those named last year.

A series of free lectures on Health and the Care of Children is being given on Tuesday evenings at 7-15, at the Central Schools, under the auspices of the Urban Technical Instruction Committee, to which working men and women are specially invited.

Tables as required by the Local Government Board and County Council are appended, but the Clerk of the Union states he is unable to give me a list of the deaths in the Union House of people from Willenhall. One year with another they would be about 10.

I am, Gentlemen,

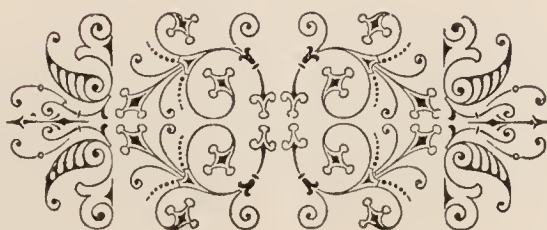
Yours obediently,

JOHN T. HARTILL,

M. O. H.

Willenhall,

January 24th, 1898.



*Extract from Annual Report for 1892, referred
to in this Report.*

“The possible appearance of Cholera led to me saying that in my opinion there is not much risk of *any very serious outbreak here*, if the reservoirs and water-mains can be kept free from Choleraic discharges. In the last epidemic in this town when the population was about 11,000 there were 1,110 cases treated by my Uncle and his Assistants between July 27th and October 19th. Polluted water was undoubtedly the cause then. Facts like these, and similar facts recorded as the cause of the epidemic in continental towns in 1892, should cause us to remember there is an increasing tendency to the pollution of Rivers due to the growth of population, and that therefore it is necessary to ask the Corporation of Wolverhampton whether they cannot arrange to draw their entire supply of water from deep wells. At any rate from the moment the first sporadic cases of Cholera occur in these islands until the disease has been banished several weeks, no water ought to be taken from a river liable to pollution. It is not unlikely Cholera will break out again in the Spring or Summer. Forethought to meet the possibility may save the health and lives of thousands.”

TABLE A.

Shewing the Deaths classified according to Diseases and Ages, &c.

At all Ages.	Under One Year.	One and under 5.	Five and under 15	Fifteen and under 25	Twenty-five and under 65.	Sixty-five and upwards.
414	164	80	8	8	104	50

DEATHS.

				Under Five.	Over Five.
From Measles	...	...	...	34	1
„ Whooping Cough	...	...	...	7	...
„ Scarlet Fever	...	...	...	1	1
„ Typhoid Fever	...	...	...	1	4
„ Cholera (English)	...	...	...	2	...
„ Diarrhœa and Dysentery	...	...	...	56	5
„ Diphtheria	...	...	...	2	...
„ Puerperal Fever	...	...	...	...	1
„ Erysipelas	...	...	...	...	2
„ Membranous Croup	...	...	...	...	1
„ Influenza	...	...	...	...	2
„ Diseases of Heart	...	...	...	...	6
„ Consumption	...	...	...	7	17
„ Bronchitis, Pleurisy, and Pneumonia	...	...	...	18	34
Inquest Cases—Natural Causes	...	...	...	4	7
„ —Violence	...	...	...	3	2
From Rheumatic Fever ; Ague ; Small Pox ; Typhus, Continued, and Relapsing Fevers	...	...	...	0	0
„ All other Diseases	...	...	...	109	87
TOTAL				244	170

Deaths { Males 213 } Total 414, equal to a Death Rate of 22·1
 { Females 201 } per 1,000.

Births { Males 355 } Total 720, equal to a Birth Rate of 38·5
 { Females 365 } per 1,000.

Population Census 1891 ... 16,852.
 „ Midsummer 1897 ... 18,669.

Deaths in Union House, Wolverhampton, from the District ?.

Area in Acres ... 1,249.

TABLE B.

Shewing New Cases of Infectious Diseases and Deaths therefrom, &c.

NOTIFIABLE DISEASES.					
	New Cases.		Deaths.		Infected Houses.
	Under 5	Over 5.	Under 5.	Over 5.	
Scarlet Fever ...	16	26	1	1	29
Typhoid Fever ...	3	15	1	4	17
Erysipelas ...	2	19	...	2	21
Diphtheria ...	10	9	2	...	19
Membranous Croup	...	2	...	1	2
Puerperal Fever ..	...	1	...	1	1

NON-NOTIFIABLE DISEASES.					
	New Cases.		Deaths		Infected Houses.
	Under 5.	Over 5	Under 5.	Over 5	
Whooping Cough...	34	17	7	...	34
Diarrhœa ..	57	33	56	5	83
English Cholera ...	2	...	2	...	2
Mumps ..	4	35	...	...	37
Chicken Pox ..	22	33	...	...	47
Measles ..	318	420	34	1	504
Influenza ...	...	13	...	2	13
Ringworm ...	...	7	...	...	7
Scabies ..	...	2	...	...	1

The Notification Act became compulsory
February 13th, 1893.

Death Rate from preventable causes, including
Diarrhœa, and English Cholera, but not Influenza,
6·3 per 1,000

TABLE C.

Summary of Work by Inspector of Nuisances, under my supervision.

		Inspection made.	In- formal Notices.	Formal Notices.	No. of Nui- sances.	Nuisances abated after notice	Prose- cu- tions.
Dwell'g Houses and Schools	{ Foul Conditions Structural defects Overcrowding Unfit for Habita'n }	about 3249	1	...	1	1	...
			...	1	1	1	...
			2	6	8	8	...
			1	3	10	1 & 3 partly	...
Dairies, Milkshops & Cowsheds		20	1	...	2	1	...
Bakehouses	...	62	12	...	12	10	...
Slaughterhouses	...	56	10	1	11	11	...
Ashpits and Privies	...	1792	535	22	557	547	1
Deposits of Refuse and Manure		14	5	2	7	7	...
Water Closets	...	540	27	4	27	27	...
House Drainage	{ Defective Traps No disconnection Other Faults }	about 200	1	...	1	1	...
		
			40	60	76	45	6
Water Supply	...	8	4	...	4	4	...
Pigsties	...	65	16	...	16	5	...
Animals improperly kept	...	16	8	...	8	8	...
Smoke Nuisances	...	2	1	...	1	1	...
Other Nuisances...	...	34	8	10	17	16	1

	Nos.
Seizure of unwholesome Food	1
Lots of infected bedding stoved or destroyed	27
Houses disinfected after Infectious Disease	41
Schools " " " " " "	2
Formal Notices served 1896 ; abatement of Nuisances 1897	1
Informal " " " " " "	14
Informal Notices 1897. Nuisances in process of abatement	5
Formal " " " " " "	12
36 and 37, Lower Lichfield Street, Magistrates Order { Not for Drainage to be done in 28 days } complied with	

TABLE D.

Shewing Certificates to Elementary School Authorities advising exclusion of Scholars from Infected Houses for specified periods during the School year ended November 30th, 1897; including those granted in the previous School year, the effect of which had not expired on December 1st, 1896.

					Certificates of Infected Children.	Healthy Absentees.
Board Schools, Little London	...	...			134	225
„ „ Portobello	...	...			158	257
„ „ Central	...	...			100	107
„ „ Walsall Road	...	...			66	107
St. Giles' National Schools	...	...			62	91
St. Anne's „ „	...	...			58	90
Wesleyan Methodist „	...	...			75	100
Primitive „ „	...	...			61	87
St. Mary's Catholic „	...	...			27	46
TOTALS ...					741	1110

